

Attorney Docket No. LWEPE:125US
U.S. Patent Application No. 10/711,188
Reply to Office Action of September 29, 2006
Date: November 27, 2006

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A microscope, comprising:
 a microscope stand comprising a first and second sidewall that [[is]] are defined by the microscope and, wherein at least one of said first and second sidewalls includes an elongated opening;
 a microscope stage;
 at least one objective that, in a working position, defines an optical axis; and
 a focusing device having a first and second end, at least a first shaft and at least one operating element that is provided on the microscope stand, wherein at least one of said first and second ends extends through the elongated opening, wherein the operating element generates a relative motion between the objective and the microscope stage in the direction of the optical axis and the operating element sits on the first shaft of the focusing device and the side wall, and wherein the focusing device is modifiable displaceable in terms of its position within the microscope stand in such a way that resultant displacements of said first and second ends are substantially equal, and the spatial arrangement of the at least one operating element on the side wall of the microscope stand is adjustable by means of the elongated opening.

Claim 2 (original): The microscope as defined in Claim 1, wherein the spatial arrangement of the operating element on the microscope stand is adjustable substantially in a direction parallel to the optical axis.

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Claim 3 (original): The microscope as defined in Claim 1, wherein a support carriage is provided with which the focusing device and the operating element are associated and which slides along a guide provided on the microscope stand.

Claim 4 (original): The microscope as defined in Claim 3, wherein the guide for the support carriage comprises a ball guide, in particular a crossed roller guide, or a plain guide, in particular a dovetail guide.

Claim 5 (currently amended): A microscope, comprising:
a microscope stand comprising a sidewall that is defined by the microscope and includes an elongated opening;
a microscope stage;
at least one objective that, in a working position, defines an optical axis; and
a focusing device having at least a first shaft and at least one operating element that is provided on the microscope stand, wherein the operating element generates a relative motion between the objective and the microscope stage in the direction of the optical axis and the operating element sits on the first shaft of the focusing device and the side wall, and wherein the focusing device is modifiable in terms of its position within the microscope stand in such a way that ~~The microscope as defined in Claim 1, wherein~~ the spatial arrangement of the at least one operating element on a side wall of the microscope stand is adjustable substantially in the vertical and horizontal direction by means of a curved elongated hole.

Claim 6 (original): The microscope as defined in Claim 5, wherein the focusing device is equipped with a pivot axis about which the focusing device is pivotable, together with the at least one operating element, in such a way that the position of the operating element on the at least one side wall of the microscope stand is adjustable.

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Claim 7 (original): The microscope as defined in Claim 6, wherein a second shaft arranged substantially coaxially with the pivot axis is provided, and is embodied in such a way that a rotary motion of the first shaft is transferable by way of the operating element to the second shaft.

Claim 8 (original): The microscope as defined in Claim 7, wherein the rotary motion is transferable between the first shaft of the operating element and the second shaft in positively engaged fashion.

Claim 9 (original): The microscope as defined in Claim 8, wherein at least two gears are provided, one of the gears preferably being respectively arranged nonrotatably on each shaft, and the gears being in meshing engagement with one another.

Claim 10 (original): The microscope as defined in Claim 9, wherein the rotary motion of the second shaft is transferable in positively engaged fashion to a mechanism which generates the relative motion between the objective and the microscope stage in the direction of the optical axis of the objective.

Claim 11 (original): The microscope as defined in Claim 10, wherein at least one further intermediate shaft is provided which serves for positively engaged transfer of the rotary motion of the first shaft to the mechanism which generates the relative motion between the objective and the microscope stage in the direction of the optical axis of the objective.

Claim 12 (original): The microscope as defined in Claim 10, wherein the mechanism comprises a toothed rack that is in meshing engagement with the second shaft or with the axis associated with the support carriage.

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Claim 13 (original): The microscope as defined in Claim 1, wherein the first shaft of the focusing device is equipped with a coding disk that coacts with a sensor element which converts into electrical signals the rotation of the first shaft generated by the operating element.

Claim 14 (original): The microscope as defined in Claim 13, wherein the sensor element is a light barrier that is immovably connected to the focusing device.

Claim 15 (original): The microscope as defined in Claim 13, wherein at least one motor that effects the relative motion between the objective and microscope stage is provided in the microscope stand.

Claim 16 (original): The microscope as defined in Claim 1, wherein at least one means are provided with which the focusing device can be immobilized on the microscope stand.

Claim 17 (original): The microscope as defined in Claim 1, wherein the operating element comprises a coarse drive and/or a fine drive.

Claim 18 (original): The microscope as defined in Claim 17, wherein two operating elements are provided on each of the two side walls of the microscope stand.

Claim 19 (original): The microscope as defined in Claim 1, wherein a holding element, on which the microscope stage or a turret receiving the objective is movable, is provided on the microscope stand.

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Claim 20 (previously presented): A microscope, comprising a microscope stand; a microscope stage; at least one objective that, in a working position, defines an optical axis; a focusing device having at least one operating element that is provided on the microscope stand, wherein the operating element generates a relative motion between the objective and the microscope stage in the direction of the optical axis and the operating element sits on a first shaft of the focusing device and a side wall is defined by the microscope, wherein the focusing device is modifiable in terms of its position within the microscope stand in such a way that the spatial arrangement of the at least one operating element on the side wall of the microscope stand is adjustable substantially in the vertical and horizontal direction by means of a curved elongated hole.

Claim 21 (previously presented): The microscope as defined in Claim 20, wherein the focusing device is equipped with a pivot axis about which the focusing device is pivotable, together with the at least one operating element, in such a way that the position of the operating element on the at least one side wall of the microscope stand is adjustable.

Claim 22 (previously presented): The microscope as defined in Claim 21, wherein a second shaft arranged substantially coaxially with the pivot axis is provided, and is embodied in such a way that a rotary motion of the first shaft is transferable by way of the operating element to the second shaft.

Claim 23 (previously presented): The microscope as defined in Claim 22, wherein the rotary motion is transferable between the first shaft of the operating element and the second shaft in positively engaged fashion.

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Claim 24 (previously presented): The microscope as defined in Claim 23, wherein at least two gears are provided, one of the gears preferably being respectively arranged nonrotatably on each shaft, and the gears being in meshing engagement with one another.

Claim 25 (previously presented): The microscope as defined in Claim 24, wherein the rotary motion of the second shaft is transferable in positively engaged fashion to a mechanism which generates the relative motion between the objective and the microscope stage in the direction of the optical axis of the objective.

Claim 26 (previously presented): The microscope as defined in Claim 25, wherein at least one further intermediate shaft is provided which serves for positively engaged transfer of the rotary motion of the first shaft to the mechanism which generates the relative motion between the objective and the microscope stage in the direction of the optical axis of the objective.

Claim 27 (previously presented): The microscope as defined in Claim 25, wherein the mechanism comprises a toothed rack that is in meshing engagement with the second shaft or with the axis associated with the support carriage.

Claim 28 (new): The microscope as defined in Claim 20, wherein the first shaft of the focusing device is equipped with a coding disk that coacts with a sensor element which converts into electrical signals the rotation of the first shaft generated by the operating element.

Claim 29 (new): The microscope as defined in Claim 28, wherein the sensor element is a light barrier that is immovably connected to the focusing device.

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Claim 30 (new): The microscope as defined in Claim 28, wherein at least one motor that effects the relative motion between the objective and microscope stage is provided in the microscope stand.